CLAIMS

We claim:

1. A computer-implemented method comprising:

receiving data defining a document that is to be printed on a printer;

processing the data to identify one or more characteristics of the data; and

based on the one or more characteristics, automatically selecting an N-Up printing mode in which to print the document.

2. The computer-implemented method of claim 1, wherein the act of processing the data comprises processing data associated with text.

3. The computer-implemented method of claim 1, wherein the act of processing the data comprises processing data associated with graphics.

4. The computer-implemented method of claim 1, wherein the act of processing the data comprises processing data associated with both text and graphics.

5. The computer-implemented method of claim 1, wherein the act of selecting comprises performing a mapping operation, based on the one or more characteristics, effective to map the one or more characteristics to an N-Up mode.

6. The computer-implemented method of claim 5, wherein the act of performing comprises consulting a look up table containing a plurality of characteristic values and N-Up mode values each of which being associated with one or more characteristic values.

7. The computer-implemented method of claim 1 further comprising changing one or more characteristics with which an N-Up printing mode is associated effective such that future documents that embody the changed characteristics will be printed in the associated N-Up mode.

8. The computer-implemented method of claim 7, wherein the act of changing is performed responsive to user input.

9. One or more computer-readable media having computer-readable instructions thereon which, when executed by one or more processors, cause the one or more processors to:

receive data defining a document that is to be printed on a printer;

process the data to identify one or more characteristics of the data; and

based on the one or more characteristics, automatically select an N-Up printing mode in which to print the document.

10. The one or more computer-readable media of claim 9, wherein the instructions cause the one or more processors to process data associated with text.

11. The one or more computer-readable media of claim 9, wherein the instructions cause the one or more processors to process data associated with graphics.

12. The one or more computer-readable media of claim 9, wherein the instructions cause the one or more processors to process data associated with both text and graphics.

13. The one or more computer-readable media of claim 9, wherein the instructions cause the one or more processors to select an N-Up printing mode by performing a mapping operation, based on the one or more characteristics, effective to map the one or more characteristics to an N-Up mode.

14. The one or more computer-readable media of claim 13, wherein the instructions cause the one or more processors to perform the mapping operation by consulting a look up table containing a plurality of characteristic values and N-Up mode values each of which being associated with one or more characteristic values.

15. The one or more computer-readable media of claim 9, wherein the instructions further cause the one or more processors to change one or more characteristics with which an N-Up printing mode is associated effective such that future documents that embody the changed characteristics will be printed in the associated N-Up mode.

16. The one or more computer-readable media of claim 15, wherein the instructions cause the one or more processors to change one or more characteristics responsive to user input.

17. A computer-implemented method comprising:

receiving data defining a document that is to be printed on a printer;

processing the data to identify one or more characteristics of the data, at least one of the characteristics pertaining to a font that is to appear on a printed document; and

based on the one or more characteristics, selecting an N-Up printing mode in which to print the document.

18. The computer-implemented method of claim 17, wherein said at least one characteristic pertaining to the font pertains to a font size.

19. The computer-implemented method of claim 17, wherein said at least one characteristic pertaining to the font pertains to a smallest font size that would appear on the printed document.

20. The computer-implemented method of claim 17, wherein said at least one characteristic pertaining to the font pertains to a font type.

21. The computer-implemented method of claim 17, wherein said at least one characteristic pertaining to the font pertains to a font complexity.

22. The computer-implemented method of claim 17, wherein said at least one characteristic pertaining to the font pertains to at least one graphics-based font.

23. The computer-implemented method of claim 17, wherein said act of processing the data comprises processing data associated with graphics.

24. The computer-implemented method of claim 17, wherein said act of receiving data comprises receiving page description language (PDL) data.

25. The computer-implemented method of claim 17, wherein said act of receiving data comprises receiving bit map data.

26. One or more computer-readable media having computer-readable instructions thereon which, when executed by one or more processors, cause the one or more processors to:

receive data defining a document that is to be printed on a printer;

process the data to identify one or more characteristics of the data, at least one of the characteristics pertaining to a font that is to appear on a printed document; and

based on the one or more characteristics, select an N-Up printing mode in which to print the document.

27. The one or more computer-readable media of claim 26, wherein the instructions cause the one or more processors to process the data to identify at least one characteristic pertaining to a font size.

28. The one or more computer-readable media of claim 26, wherein the instructions cause the one or more processors to process the data to identify at least one characteristic pertaining to a smallest font size that would appear on the printed document.

29. The one or more computer-readable media of claim 26, wherein the instructions cause the one or more processors to process the data to identify at least one characteristic pertaining to a font type.

30. The one or more computer-readable media of claim 26, wherein the instructions cause the one or more processors to process the data to identify at least one characteristic pertaining to a font complexity.

31. The one or more computer-readable media of claim 26, wherein the instructions cause the one or more processors to process the data to identify at least one characteristic pertaining to at least one graphics-based font.

32. The one or more computer-readable media of claim 26, wherein the instructions cause the one or more processors to process the data associated with graphics.

33. The one or more computer-readable media of claim 26, wherein the instructions cause the one or more processors to receive and process page description language (PDL) data.

34. The one or more computer-readable media of claim 26, wherein the instructions cause the one or more processors to receive and process bit map data.

35. An apparatus comprising:

memory;

one or more processors;

computer-readable instructions in the memory which, when executed by the one or more processors, cause the processors to:

receive data defining a document that is to be printed on a printer;

process the data to identify one or more characteristics of the data;

based on the one or more characteristics, select an N-Up printing mode in which to print the document.

36. The apparatus of claim 35, wherein the data that is processed is associated with text.

37. The apparatus of claim 35, wherein the data that is processed is associated with graphics.

38. The apparatus of claim 35, wherein the data that is processed is associated with both text and graphics.

39. The apparatus of claim 35, wherein the N-Up printing mode is selected by performing a mapping operation, based on the one or more characteristics, effect to map the one or more characteristics to an N-Up mode.

40. The apparatus of claim 35 embodied as a printer.

41. The apparatus of claim 35 embodied as a client computing device.

42. The apparatus of claim 35 embodied as a server.

43. A software architecture comprising:

an N-Up analysis module configured to:

receive data defining a document that is to be printed on a printer;

process the data to identify one or more characteristics of the data; and

based on the one or more characteristics, select an N-Up printing mode in which to print the document, the module comprising:

a text analyzer configured to process data associated with text, and

a graphics analyzer configured to process data associated with graphics.

44. The software architecture of claim 43 further comprising a look up table containing a plurality of characteristic values and N-Up mode values each of which being associated with one or more characteristic values.

45. The software architecture of claim 44, wherein the module is configured to select an N-Up mode by mapping one or more characteristic values to an associated N-Up mode value.

46. The software architecture of claim 43, wherein the N-Up analysis module is embodied as a print driver.

47. The software architecture of claim 43, wherein the N-Up analysis module is embodied in a printer.

48. The software architecture of claim 43, wherein the N-Up analysis module is embodied in a client computer.

49. The software architecture of claim 43, wherein the N-Up analysis module is embodied in a server.